

## Biological Psychology

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To understand the behavior of humans and non-human animals better, biological principles are applied to these behaviors. This field is known as biological psychology, a branch of psychology that is also referred to as behavioural neuroscience. Biological psychologists seek to examine the anaphysiological processes behind different behaviors, whether normal or abnormal.



The banner features the Explorable logo at the top center, with the text "Quiz Time!" in a cursive font below it. Below the logo are three square images, each with a quiz title underneath. The first image shows a pair of red roller skates on a wooden deck, with the quiz title "Quiz: Psychology 101 Part 2". The second image shows a fan of colorful pens, also with the quiz title "Quiz: Psychology 101 Part 2". The third image shows a Ferris wheel at sunset, with the quiz title "Quiz: Flags in Europe". To the right of these images is a link that says "See all quizzes =>".

## History

Compared to most branches of psychology, behavioural neuroscience is a scientific discipline that emerged during the 19<sup>th</sup> century. However, biological psychology is deeply rooted in various fields in both science and philosophy.

Several early scientists and philosophers have expressed their beliefs with regards to studying psychology in the grounds of biology. One of them is William James, who wrote "The Principles of Psychology". In this book, he argued that the physiology of brain must be taken into account in the study of psychology at some degree. Rene Descartes, a philosopher, believed that the pineal gland is where the body and the mind meet. He also formed models and theories regarding the effect of bodily fluids' pneumatics in human reflexes and motor behavior.

In Harlow's Phineas Gage brain injury case study (1848), the results proved that the functional work of the brain has significant implications in terms of behavioural neuroscience.

The first use of the term "psychobiology" in the modern times was in the 1914 book "An Outline of Psychobiology" by Knight Dunlap. This book and a journal on psychobiology were worked on by Dunlap in order to publish research studies that have the interconnection of physiological and mental functions as their grounds. Many years later, Edward Wilson wrote and published "Sociobiology", a book that connected psychology and evolution.

## Areas of Study

Early biological psychologists or behavioural neuroscientists focused their research on the relationships between mental processes and behaviors amongst different nonhuman animals. In particular, the areas that have been studied include sensation and perception, emotion, learning and memory, movement and control, motivation, language, sleep, reasoning and consciousness. Biological psychology <sup>[1]</sup> has had a long list of contributions in the comprehensive study of various medical disorders. The most notable ones include Alzheimer's disease (progressive cognitive deterioration and behavioural changes), Parkinson's disease (central nervous system disorder) and Huntington's disease (neurogenetic disorder). Schizophrenia, clinical depression, mania, anxiety disorders, autism and drug abuse are also hot areas of study in behavioural neuroscience today.

## Three Aspects

There are three aspects or ways in which the biological perspective is significant in the study psychology. One of these is Physiology, in which the mechanisms of the nervous system are studied in order to understand human behavior. Another is the Comparative Method that studies and compares the different species of animals. Lastly, Genetics, as the investigation of inheritance of traits and attributes may help understand human behavior.

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### Links

[1] <http://www.careersinpsychology.co.uk/what-biological-psychology.html>